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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Peter N. Slater, Jimmie J. Straw, Bruce W. Gerhold,  
Ricky E. Snelling, Steven A. Owen and Kent E. Jeffers

For: METHOD AND APPARATUS FOR IMPROVING THE EFFICIENCY OF A  
COMBUSTION DEVICE

**LETTER**

Assistant Commissioner of Patents and Trademarks  
Washington, D. C. 20231

Attached hereto for filing in the United States Patent and Trademark Office is the patent  
application identified above. This application includes an executed assignment and 3 sheet(s) of drawings.

The filing fee has been computed as follows:

Basic Fee	\$740.00
Additional Fees:	
Total number of claims (whether independent or dependent) over 20, times \$18.00	\$504.00
Number of independent claims over 3, times \$84.00	\$84.00
Multiple Dependent Claims (\$280)	\$000.00
Total Filing Fee	\$1,328.00

Please charge Deposit Account 16-1575 in the amount of the total filing fee stated above.

The Commissioner is hereby authorized to charge any additional fees which may be required under 37

C.F.R. 1.16 or 37 C.F.R. 1.17, or credit any overpayment, to Deposit Account 16-1575, but is not authorized to charge any fee provided for under 37 C.F.R. 1.18.

If the Examiner wishes to contact representatives of record concerning the accompanying application prior to the first Official Action, such contact should be made with the undersigned.

The following references, a copy of each is attached, are called to the Examiner's attention:

"Process Control Handbook", Chapter 8.12, Liptak, B.G. - Discusses furnace and reformer controls.

U.S. 4,920,998 (Deitrick et al., May 1, 1990) - Discloses a method and apparatus for controlling the fluid flow bias of continuous, multiple zone processes having gas or vapor comprising atmospheres that are in immediate access to each other.

U.S. 4,496,316 (Tsai, Jan. 29, 1985) - Discloses a method of and apparatus for selective control of combustion gas flow in a furnace firing port in a furnace of the type having a plurality of firing ports, each port having a passageway for receiving combustion gas, e.g. preheated air, from a common plenum chamber, wherein the chamber includes a back or target wall in opposed spaced relationship to each of the passageways.

U.S. 4,490,108 (Petzi, Dec. 25, 1984) - Discloses a process for reducing the oxygen content of the atmosphere in a heat treatment furnace for ceramic materials to a prescribed value comprises measuring the O<sub>2</sub> content of the furnace atmosphere at the point in the furnace to be affected and introducing fuel gas into the furnace as a function of the measurement result in such quantities that the desired oxygen content is attained.

U.S. 5,777,241 (Evenson, July 7, 1998) - Discloses a furnace system including a furnace and a furnace monitoring and control system having a gas analyzer for analyzing the composition of furnace off-gases, and a sampling tube or probe used to obtain a high temperature off-gas sample for delivery to the gas analyzer.

Respectfully submitted,

RICHMOND, HITCHCOCK,  
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I hereby certify that this fee letter is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R. 1.10 on the date indicated and is addressed to the Assistant Commissioner of Patents and Trademarks, Washington, D.C. 20231, on

December 19, 2001  
(Date)

Jeffrey R. Anderson  
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**CERTIFICATE OF MAILING BY "EXPRESS MAIL"**

Assistant Commissioner for Patents  
Washington, D. C. 20231

Sir:

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"Express Mail Post Office To Addressee" service under 37 C.F.R. 1.10 on the date indicated above and is  
addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Respectfully submitted,

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